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AGENDA
OU 7 IM/IRA/EA DD Project Team

Wednesday, March 22, 1995
Small West Conference Room
11:00 AM

1. Update on Closure Strategies (Roundtable)

- Status of Focused Risk Assessments
- Closure Strategy presentation (draft) is due April 4, 1995

2. ARARs (S. M. Stoller)

- What is applicable?
- What is relevant and appropriate?
- How do we apply for waivers?

3. Mystery Topic (L. J. Peterson-Wright)

Next meetings:	March 29, 1995, 10:00, Interlocken-Small West Conference Room TOPICS: Closure Strategies Agency Interface Meeting - Tentatively, April 12, 1995 (Only Peg and Laurie attending)
Please note:	The April 5, 1995 meeting with be held at Stoller in Boulder.

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PCOC	SDWA MCLs (40 CFR 141) (T)	Colo. MCLs (5 CCR 1003-1) (T)	Federal Secondary Drinking Water Standards (40 CFR 143) (T)	RCRA MCLs (40 CFR 264.94) (T)	MCLGs (40 CFR 141.50-52) (T)	Colo. Water Quality Standards (5 CCR 1002-8, 3.1.11)	Segments 4 and 5 Standards (5 CCR 1002-8, 3.8.0)	Colo. Basic Std. for G-Water (5 CCR 1002-8, 3.11)	Colo. G-Water Std. For Rocky Flats (5 CCR 1002-8, 3.12.7)	PQLs
Metals										
Aluminum			.05 to .2					5 (AG, D)	5 (AG, D)	
Antimony	.006	.006			.006	.014 (DW, T)		.006 (HH, D)		.3
Arsenic	.05	.05		.05		.1 (AG, T) .05 (DW, T)	.05 (TR)	.05 (HH, D) .1 (AG, D)	.05 (HH, D), .1(AG, D)	.01
Barium	2	2		1	2	1 (DW, T)		1 (HH, D)	1.0 (HH, D)	.02
Beryllium	.004	.004			.004	.1 (AG, T) .0000076 (DW, T)	.004 (T)	.004 (HH, D) .1 (AG, D)	.1 (AG, D)	.002
Cadmium	.005	.005		.01	.005	.01 (AG, T) .01 (DW, T)		.005 (HH, D) .01 (AG, D	.01 (HH, D), .01 (AG, D)	.001
Calcium										
Chromium	.1	.1		.05	.1	.1 (AG, T) .05 (DW, T)		.05 (HH, D) .1 (AG, D	.05 (HH, D), .1 (AG, D)	.01
Cobalt								.05 (AG, D)	.05 (AG, D)	.01
Copper			1		1.3		.023 (3,TR)	1.0 (DW, D) .2 (AG, D)	1.0 (DW, D), .2 (AG, D)	.6
Iron			.3				13.2 (TR,3) .3 (D), 1 (TR)	.3 (DW, D), 5 (AG, D)	.3 (DW, D), 5 (AG, D)	
Lead				.05		.1 (AG, T) .05 (DW, T)	.028 (3,TR)	.05 (HH, D) .1 (AG, D)	.05 (HH, D), .1 (AG, D)	.01
Lithium								2.5 (AG, D)	2.5 (AG, D)	
Magnesium										
Manganese			.05			.2(AG, T) .05(DW, D)	.56 (3,D) 1.0 (TR) .05 (D)	.05 (DW, D), .2 (AG, D)	.05 (DW, D), .2 (AG, D)	
Mercury	.002	.002		.002	.002	.002 (DW, T)	.00001 (T)	.002 (HH, D)	.002 (HH,	.002

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								.01 (AG, D)	D), 01 (AG, D)	
Molybdenum										
Nickel	.1	.1			.1	.2 (AG, T)		.1 (HH, D) .2 (AG, D)	.2 (AG, D)	.05
Potassium										
Selenium	.05	.05		.01	.05	.02 (AG, T) .01 (DW, T)	.01 (TR)	.01 (HH, D) .02 (AG, D)	.01 (HH, D), .02 (AG, D)	.02
Silicon										
Silver			.1	.05		.05 (DW, T)		.05 (HH, D)	.05 (HH, D)	.07
Sodium										
Strontium										
Tin										8
Vanadium								.1 (AG, D)	.1 (AG, D)	.04
Zinc			5			2 (AG, T) 5 (DW, T)	.35 (3,TR)	5 (DW, D), 2 (AG, D)	5 (DW, D), 2 (AG, D)	.02
Radionuclides										
Americium 241							.05 (pci/l)			
Cesium 137										
Radium 226	5 (pci/l)					5 (pci/l)		5 (pc/l)		

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Gross Alpha	15 (pci/l)	15 (pci/l)					7 (1) 11 (2) (pci/l)		15 (pci/l) (HH)	
Gross Beta	8 (pci/l)						5 (1) 19 (2) (pci/l)		8 pci/l (HH)	
Uranium 233, 234										
Uranium 235										
Uranium 238										
Total Uranium						40 (pci/l)	5 (1) 10 (2) (pci/l)			
Strontium 89,90	8 (pci/l)					8 (pci/l)		8 (pc/l)		
Water Quality Parameters										
Chloride	250						250	250 (DW, D)	250 (DW, D)	
Cyanide	.2	.2			.2	.2 (AG) .2 (DW)	.005	.2	.2 (HH)	
Fluoride	4	4	2		4	2 (DW)		4	4 (HH, D)	
Nitrate/Nitrite	10	10			10			10	10 (HH, D for nitrate), 1 (HH, D for nitrite))	
Sulfate			250			250 (DW)	250	250 (DW, D)	250 (DW, D)	
Total Dissolved Solids			500							

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Volatile Organic Compounds										
1,1, Dichloroethane										.001
1,1, Dichloroethene										.001
1,1,1, Trichloroethane	.2	.2			.2	.2 (HH, DW, DW&F)		.2		.001
1,1,2, Trichloroethane	.005	.005			.003	.0006 (HH, DW&F) 9.4 (AQ, AC)	.0006	.003		.001
1,2, Dichloroethene										.001
1,2, Dichloropropane	.005	.005				.00056 (HH, DW, DW&F) 23 (AQ, AC) 5.7 (AQ, CH)		.00056		.001
1,4 Dichlorobenzene						.075 (HH, DW, DW&F)		.075		.001
2 Butanone										
2 Hexanone										.05
4 Methyl 2 pentanone										.05
Acetone										.1
Benzene	.005	.005				.001 (HH, DW, DW&F) 5.3 (AQ, AC)		.005		.001
Bromodichloromethane						.0003 (HH, DW, DW&F)	.001	.0003		.001
Bromoform						.004 (HH, DW, DW&F)	.004	.004		.001
Carbon Disulfide										

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Carbon Tetrachloride	.005	.005				.0003 (HH, DW) .00025 (HH, DW&F) 35.2 (AQ, AC)	.018 (3)	.003		.001
Chlorobenzene						.1 (HH, DW, DW&F)		.1		.001
Chloroethane										.005
Chloroform						.006 (HH, DW, DW&F) 28.9 (AQ, AC) 1.24 (AQ, CH)	.006	.006		.001
Ethylbenzene	.7	.7			.7	.68 (HH, DW) 3.1 (HH, DW&F) 32 (AQ, AC)		.68		.01
Methylene Chloride						.0047 (HH, DW&F)	.0047	.005		.001
Tetrachloroethene	.005	.005				.005 (HH, DW) .0008 (HH, DW&F) 5.280 (AQ, AC) .84 (AQ, CH)	.0008	.005		.001
Toluene	1.0	1.0			1.0	1.0 (HH, DW, DW&F) 17.5 (AQ, AC)		1.0		.001
Total Xylenes	10	10			10			10		.005
Trichloroethene	.005	.005				.005 (HH, DW) .0027 (HH, DW&F) 45 (AQ, AC)	.066 (3)	.005		.001

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						21.9 (AQ, CH)				
Vinyl Chloride	.002	.002				.002 (HH, DW, DW&F)		.002		.002
Semivolatile Organic Compounds										
2 Chloronapthalene										.01
2 Methylphenol										
2,4 Dimethylphenol						2.12 (AQ, AC)				.05
2,4,5, Trichlorophenol										.01
4 Methylphenol										
4 Nitrophenol										.01
Acenaphthene						1.7 (AQ, AC) .52 (AQ, CH)				.01
Benzoic Acid										
Bis(2-ethylhexyl)phthalate						.0018 (HH, DW&F)				.01
Di-n-Butyl Phthalate						2.7 (HH, DW&F)				.01
Diethyl Phthalate						23 (HH, DW&F)				.01
Fluorene						.0000028 (HH, DW&F)	.0000028			.01
Naphthalene						.0000028 (HH, DW&F) 2.3 (AQ, AC) .62 (AQ, CH)	.0000028			.01
Pentachlorophenol						.2 (HH, DW) .009 (AQ, AC) .0057 (AQ, CH)		.001		.05

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Phenanthrene						.0000028 (HH, DW&F)				.01
Phenol						21 (HH, DW&F) 10.2 (AQ, AC) 2.5 (AQ, CH)			.001	.05

All numbers in mg/l unless otherwise noted
AG=Agricultural
T=Total
D= Dissolved
TR=Total Recoverable
DW=Drinking Water
HH=Human Health
AQ=Aquatic
AC=Acute
DW&F=Drinking Water and Fish
1=Segment 4 and 5 standards for Woman Creek
2=Segment 4 and 5 standards for Walnut
3=Standards for Big Dry Creek, Segment 5 (valid until 4/1/96)

established 1959

March 28, 1995
2510-95/38

Ms. Laurie Peterson-Wright
EG&G Rocky Flats, Inc.
P.O. Box 464, Bldg. 080
Golden, Colorado 80402-0464

Subject: Submittal of March 22, 1995 Meeting Minutes
Technical Working Group Meeting for Operable Unit No. 7
(MTS Contract 353017TB3)

Dear Ms. Peterson-Wright:

Enclosed are meeting minutes to document the March 22, 1995, technical working group meeting for the OU 7 landfill closure interim measure/interim remedial action and environmental assessment.

If you have any questions, please contact me at your convenience.

Sincerely,

Myra K. Vaag
Project Manager

Enclosure

cc:	W. Bartholomew w/o	EG&G	B. Caruso	Stoller
	R. Cygnarowicz	EG&G	A. Crockett	Stoller
	T. Lindsay	EG&G	M. Eisenbeis	Stoller
	P. Martin	EG&G	K. Fiebeg	Stoller
	P. Corser	TerraMatrix	S. Franklin	Stoller
	J. Kendall	TerraMatrix	C. Gee	Stoller
			J. Jankousky	Stoller
			D. Palmer	Stoller
			L. Ross w/o	Stoller
			B. Stephanus w/o	Stoller
			OU7 Project File	
			MKV Chron	

The S.M. Stoller Corporation 5700 Flatiron Parkway Boulder, Colorado 80301-5718 303-449-7220 FAX 303-443-1408

Minutes for the OU 7 Seep Collection/Landfill Closure IM/IRA
Technical Working Group Meeting
March 22, 1995

The following topics were discussed:

Update on Closure Strategies

Status of Focused Risk Assessments - Stoller will complete the background comparisons using the battery of statistical tests from Gilbert's methodology for groundwater around the East Landfill Pond and below the dam today or tomorrow. The ARARs comparison will be performed this week. Stoller will begin the PPRG comparison and the focused risk assessment using the residential scenario (groundwater ingestion) next week. Stoller and EG&G agreed to use the residential scenario for the focused risk assessment for groundwater, even though the agencies have agreed to an open space rather than a residential land-use scenario for baseline risk assessments, because ingestion is the only exposure route for groundwater.

Presentation of Closure Strategies - EG&G reinforced that the draft strategy on landfill closure is due on April 4, 1995. EG&G and DOE will conduct a dry run of the presentation for the agencies. The agency interface meeting is tentatively scheduled for April 12. Only EG&G and DOE will attend this meeting.

Applicable or Relevant and Appropriate Requirements (ARARs)

Chemical-specific ARARs were discussed. Because DOE has received guidance from EPA to use an open space instead of a residential land-use scenario for baseline risk assessments, Stoller proposed that drinking water standards are not applicable for OU 7 groundwater, but are relevant and appropriate and would be used as screening ARARs. Surface water agricultural standards could be used as appropriate treatment ARARs. As part of the IM/IRA/EA decision document, remedial action goals should be proposed. The agencies can then approve the remedial action goals with approval of the document.

The regulatory status of the East Landfill Pond was discussed in terms of waters of the United States (40 CFR Part 131, Section 122.2). Water in No Name Gulch is waters of the United States. Waste treatment ponds designed to meet the requirements of the Clean Water Act are not considered waters of the United States. However, this exclusion applies only to manmade bodies of water that neither were originally created in waters of the United States nor resulted from the impoundment of waters of the United States. Therefore, the East Landfill Pond, which is a waste treatment pond built to manage leachate in waters of the United States, is waters of the United States. Stoller will research other exclusions to waters of the United States before making a final determination.

EG&G has interpreted the pond water as F039-listed waste "contained in" groundwater. The proposed "contained-in" rule was withdrawn in March 1994. Codification of the "contained-in" rule will be deferred to the Hazardous Waste Identification Rule (HWIR) rulemaking process in 1995. As a result, Stoller suggested that the "derived from" rule should be used rather than the "contained-in" rule. The pond water is a listed waste under RCRA in either case. EG&G checked with their regulatory staff on this issue; the "contained in" environmental media interpretation will be used for OU 7.

Post-closure management of the East Landfill Pond was discussed for the remedial action scenario where the pond is left in place. If the pond is considered waters of the United States, the discharge from the landfill into the pond must be permitted under the Clean Water Act (NPDES). If the pond is not considered waters of

the United States, the pond water may be managed under RCRA. Under either scenario, DOE may want to consider delisting the pond water. Delisting should be achievable because the focused risk assessment shows that the risk to human health is within the acceptable risk range (10^{-4} to 10^{-6}). For both scenarios, the leachate is considered a point source of pollution and requires a NPDES permit if it discharges to groundwater and emerges downstream in No Name Gulch.

The flow chart for treatment determination (see attached) proposes that if ARARs are exceeded but there is no risk, DOE should apply for an ARARs waiver. Stoller will research the ARARs waivers.

DOE Guidance for Closure Strategy

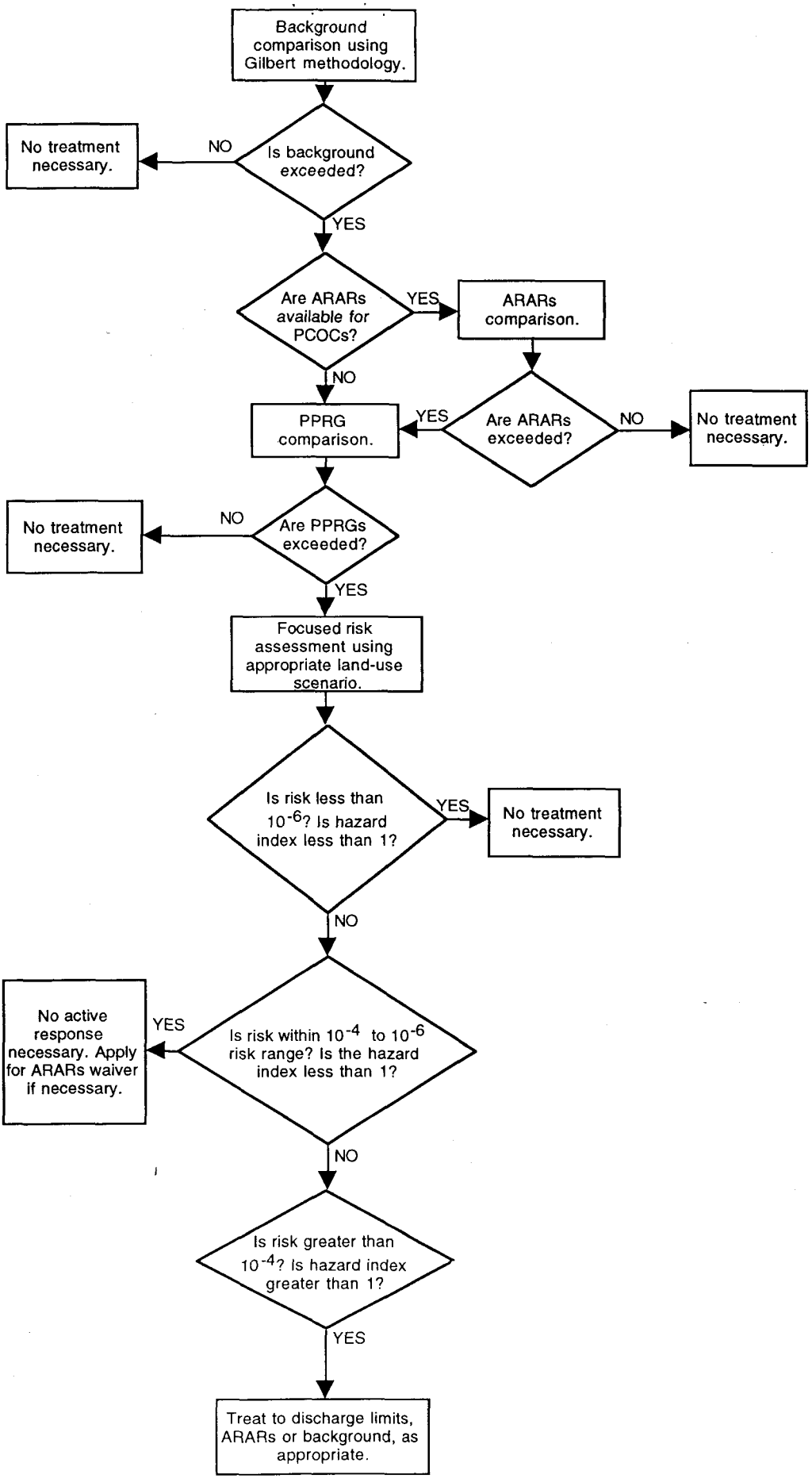
EPA has agreed to cancel the seep collection and storage PAM, but CDPHE is concerned about implementation of final landfill closure because of future budget constraints at DOE. Priorities have changed. Plutonium stabilization is now the number one priority, remedial actions at OU 2 and OU 4 are next, and closure of the landfill at OU 7 is now fourth priority.

EG&G has requested that Stoller present a bare minimum corrective action for closure that addresses CDPHE concerns about illegal discharge of F-listed waste from the landfill to a surface-water body. The corrective action must be consistent with the final remedy, conscious of waste minimization practices, and cost effective. Stoller and their subcontractors will come up with a strategy by April 4.

Action Items

01-186	Completed.
187	Determine if a small French drain would decrease head buildup in groundwater west of the landfill using the existing groundwater model (J. Jankousky, Stoller). In progress.
188-201	Completed.
202	Research implications of extending the IHSS 114 boundary to include all of OU 7 (L. Peterson-Wright, EG&G). EG&G proposes to amend the Historical Release Report based on information from the Phase I and Phase II investigations at OU 7. The amendment would expand IHSS 114 to include the north and south asbestos disposal areas, East Landfill Pond sediments, soil gas, and potentially contaminated groundwater and surface water. Completed.
203-204	Completed.
205	Perform a risk assessment on groundwater downgradient of the dam (K. Crute, Stoller). A preliminary risk assessment was performed. Based on comments from the EG&G risk assessment staff, Stoller will redo the background comparisons using the Gilbert methodology and use a 95% upper confidence limit (UCL) for the focused risk assessment. In progress.
206	Conduct an ecological benchmark screen (M. Vaag, Stoller). Stoller has the resources necessary to perform the screen. In progress.
207	Completed.

Treatment Determination for Non-Presumptive Remedy Media



208 Assist EG&G in preparing the OU 7 closure strategy paper for the next agency meeting (M. Vaag, Stoller). *In progress.*

209 Completed.

210 Check with EG&G regulatory staff about the "contained-in" rule for F039 listed waste (L. Peterson-Wright, EG&G). EG&G stands by the "contained in" environmental media interpretation. Completed.

211 Research EPA guidance on applying for ARARs waivers (S. Franklin, Stoller).

Next Meeting

The next meeting will be at 11:00 a.m. on March 29, 1995, at Stoller in Boulder. The topic of discussion is closure strategies.

List of Attendees

Name	Organization	Phone
Mary Eisenbeis	Stoller	546-4474
Steve Franklin	Stoller	546-4437
Tom Lindsay	EG&G	966-6985
Peter Martin	EG&G	966-8695
Laurie Peterson-Wright	EG&G Project Manager	966-8553
Myra Vaag	Stoller Project Manager	546-4417

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